

Bilde die Ableitungen

$$f(x) = \sin(3x^2) \quad f'(x) = 6x \cos(3x^2)$$

$$f(x) = e^{3x^2} \quad f'(x) = 6xe^{3x^2}$$

$$f(x) = \cos(x^2) \quad f'(x) = -2x \sin(x^2)$$

$$f(x) = (x^2 - 2)^2 \quad f'(x) = 2x * 2(x^2 - 2) = 4x(x^2 - 2)$$

$$f(x) = e^{\sqrt{x}} \quad f'(x) = \frac{1}{2\sqrt{x}} e^{\sqrt{x}}$$

$$f(x) = (3x + 1)^3 \quad f'(x) = 3 * 3(3x + 1)^2 = 9 * (3x + 1)^2$$

$$f(x) = \ln(x^2) \quad f'(x) = \frac{2x}{x^2} = \frac{2}{x}$$

$$f(x) = \sqrt[3]{3x + 2} \quad f'(x) = 3 * \frac{1}{3\sqrt[3]{(3x+2)^2}} = (3x + 2)^{-\frac{2}{3}}$$

$$f(x) = \sin(x^2) + \cos(x^2) \quad f'(x) = 2x \cos(x^2) - 2x \sin(x^2)$$

$$f(x) = (x^2 - 3x + 1)^2 \quad f'(x) = (2x - 3) * 2 * (x^2 - 3x + 1)$$

$$f(x) = e^{5x^2-3x+1} \quad f'(x) = (10x - 3) e^{5x^2-3x+1}$$